

Illinois Dunesland Preservation Society



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March 12, 2012

U.S. EPA – Region V (SI-7J)
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Attention: Mike Joyce, Superfund Community Involvement Coordinator

Subject: Public Comments Regarding Flawed EPA Oversight
Johns Manville Proposed Cleanup Plan – Superfund Sites 3, 4/5, 6
USEPA NPL Site ID#: ILD005443544

Dear Mr. Joyce:

Enclosed are the comments of the Illinois Dunesland Preservation Society. This includes the attached report and its attachments. The Society has been very concerned over the years about the asbestos contamination of the state dedicated nature preserve at Illinois Beach State Park, the beaches, and the Lake Michigan shoreline. The Superfund site in question is also part of a federal critical habitat area which has been severely and adversely affected.

For decades, the federal and state enforcement agencies have been negligent in protecting these areas and unfortunately favored the polluters, looking the other way and allowing the polluter to create their own reports. There has been a lack of oversight and enforcement by the federal and state regulatory agencies involved. The regulatory process has been compromised and corrupted by politicizing the regulatory processes. The adjacent Illinois Beach State Park has suffered immensely and has been irreparably damaged by the aforementioned actions and inactions of state and federal agencies.

The numerous flaws and deficiencies discussed in Mr. Camplin's report expose a pattern of apparent scientific fraud and deceit. The end result is a severely damaged and probably irreparably destroyed nature preserve and shoreline. The contamination of microscopic asbestos is persistent and systemic at Illinois Beach State Park where millions of unwitting citizens have been exposed to this dangerous and virulent asbestos for decades, causing untold health problems for them and citizens visiting the entire Illinois shoreline. Unfortunately, the federal and state agencies assured them that they were safe while knowing that their own studies were flawed, rigged, and manipulated.

Over the years, the regulatory agencies have allowed this Superfund contamination to infect the entire Illinois shoreline with microscopic asbestos. Oak Street Beach on Chicago's Gold Coast is an example.

The dilution of samples has not only been prevalent at the Superfund site's studies, but also is prevalent in the asbestos studies which were conducted by federal and state agencies for the adjacent Illinois Beach State Park.

The polluter and its accomplices (the state and federal regulatory agencies) need to start over and not only restudy the Superfund site, but all the adjacent sites that it has polluted on the entire Illinois shoreline. The studies must be conducted with total transparency, the inclusion of the learned environmental professionals, and independently peer reviewed. The peer review should not be under the control of the state and federal regulators. The only solution is scientific truth.

USEPA has a new Inspector General. We request that the Inspector General investigate all of these allegations and look for documentation which includes the Inspector General's office and its recently politicized investigations on this subject.

Sincerely,

Paul A. Kakuris

Paul A. Kakuris

cc. Lisa Jackson, USEPA Administrator
Arthur A. Elkins, Jr., USEPA Office of the Inspector General
Susan Hedman, Region 5 Administrator
Jan Carlson, USEPA Region 5 Office of Regional Counsel
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Subject: Public Comments Regarding Flawed EPA Oversight
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USEPA NPL Site ID#: ILD005443544

Mr. Joyce,

I have reviewed the proposed clean-up plan at the Johns-Manville site in Waukegan and have found some fatal flaws that require a complete re-evaluation of the scope of asbestos and other toxic chemical contamination surrounding this chronically polluted site.

I am a safety and environmental professional with the specialty and expertise in the asbestos field for over 25 years. I was one of the first licensed asbestos professionals in the State of Illinois. Since 1987 I have been teaching the USEPA asbestos accreditation courses to thousands of individuals who perform sampling, evaluation, and abatement of asbestos (including staff from USEPA and State regulatory agencies). I also have training by the McCrone Institute for asbestos analysis, allowing me to set up an asbestos laboratory and analyzed thousands of materials for the presence of asbestos. I am currently a member of the ASTM D-22 Committee that recently published a new standard on testing soils for asbestos contamination. In 2009 I testified at a Congressional Sub-Committee hearing on how the Agency for Toxic Substances and Disease Registry (ATSDR), an agency within the Centers for Disease Control (CDC), works with data generated by the USEPA and others to downplay the health risks associated with clean-ups associated with asbestos contamination.

It is my professional opinion that the draft plan has numerous fatal flaws that will result in an inadequate clean-up that cannot be demonstrated to be protective of human health. The Engineering Evaluation/Cost Analysis must be rejected by the USEPA and a new study must be mandated that properly and adequately identifies the true scope of asbestos waste and microscopic toxic asbestos fiber contamination that exist in areas well beyond those identified in the draft clean-up plan. The sampling and analytical methodologies required to determine the scope and extent of contamination must utilize clean-up objectives that are risk-based and protective of human health. Asbestos is an airborne hazard and the

site evaluations did not include any air testing to evaluate exposures where asbestos contaminated soils were below the clean-up objective. The clean-up plan relies solely upon inadequate soil testing along with smoke and mirrors to give the illusion the 40 years of toxic pollution in these sites will not pose a risk to the community or workers. The proposed clean-up plan currently utilizes sampling, testing and clean-up objectives that are not able to demonstrate the clean-up is protective of human health. Appendix A has an USEPA memo requiring clean-up objectives for asbestos clean-ups to be risk based. The draft clean-up plan contains fatally flawed clean-up objectives.

Executive Summary of Fatal Flaws

I have found several problems with the draft clean-up plan. A few of the major flaws are summarized below. It is my professional opinion that the draft plan does not utilize risk-based clean-up objectives which are required to ensure that actions are protective of human health. The testing utilized as the basis for the Engineering Evaluation/Cost Estimate did not accurately define a scope of work due to improper testing, lack of a risk based clean-up objective, and reliance on assumptions that past testing was accurate. Finally, the Engineering Evaluation that is relied upon to define the scope of clean-up is riddled with numerous undefined terms that are deceptive and confusing. Significant clarifications are required in the terminology utilized in the Engineering Evaluation before a proper evaluation of the draft clean-up plan can be made by a concerned public.

Fatal flaws exist in the testing and analytical methods relied upon in the draft clean-up plan that require a complete re-evaluation of the site to ensure the clean-up is protective of human health. Major flaws that doom the validity of the draft clean-up plan are as follows:

1. Sampling methodologies allow microscopic toxic asbestos fibers in soil to be diluted below analytical detection levels resulting in the asbestos contaminated soils being excluded from the clean-up plan. The dilution of soil sample results poses an unreasonable risk to human health. Sampling methodologies utilized to determine whether asbestos is present in soils allow for significant dilution of samples well below the inadequate detection levels. Composite sampling in one foot depths results in significant dilution of microscopic asbestos fibers that may be present in surface soils. Soils contaminated on the surface with toxic microscopic asbestos fiber concentrations above clean-up objectives of 0.25% would be reported as “non-detect” for the presence of asbestos when mixed (diluted) with 12” of asbestos-free soil. This fatal flaw results in soils contaminated with toxic microscopic asbestos fibers to be reported as “non-detect” and excluded from the clean-up plan posing an unreasonable risk to human health.
2. The analytical (laboratory) methods selected for determining the presence of microscopic toxic asbestos fibers in soils utilized a minimum detection level 2500% higher than what could actually be detected by the

laboratory. This fatal flaw results in asbestos contaminated soils being excluded from the clean-up plan and poses an unreasonable risk to human health. The testing method for soil states it can accurately determine the presence of microscopic toxic asbestos fibers in soils down to 0.25%. However, the lab used to analyze the soil samples indicates that they have the ability to accurately report soil results to concentrations less than 0.01%. The draft clean-up plan utilized a sensitivity level of 0.25% which allowed for significantly diluted soil samples (discussed in #1 above) to have the analytical sensitivity reporting levels diluted as well. This fatal flaw results in soils that have significant surface contamination of toxic microscopic asbestos fibers to be excluded from the clean-up plan posing an unreasonable risk to human health.

3. The clean-up objective in the draft clean-up plan (0.25% asbestos) has not been demonstrated as a site specific, risk based criteria that is protective of human health. The use of a flawed clean-up objective violates Superfund requirements and will exclude soils contaminated with toxic microscopic asbestos fibers diluted below the clean-up objective (see #1 and #2 above). The omission of asbestos contaminated soils in the draft clean-up plan poses an unreasonable risk to human health. The USEPA requires that remedies to Superfund clean-ups demonstrate that they are protective of human health. The clean-up objective selected by the USEPA for the draft clean-up plan has not been evaluated using site specific, risk-based methodologies and cannot be demonstrated to be protective of human health. There are numerous areas that had detectable levels of asbestos that were below the clean-up objective. These soils contaminated with microscopic toxic asbestos fibers would be excluded from the clean-up plan even though they could still pose an unreasonable risk to human health. Furthermore, sampling and analytical methods used to evaluate the soils significantly diluted the reporting of microscopic toxic asbestos fibers that could be present in surface soils (see #1 and #2 above). A much larger scope of clean-up would be required if more sensitive sampling and analytical methods were used in combination with a risk-based clean-up objective. The fatal flaw of selecting a clean-up objective that is not risk based is a violation of Superfund resulting in a clean-up that is not protective of human health.
4. The flawed sampling, analytical, and clean-up objectives established as the foundation for the draft clean-up plan significantly dilutes the true amounts of asbestos contamination found in the sites soil, including the more virulent amphibole asbestos crocidolite. Amphibole asbestos is more harmful to human health. The severe diluting of soil samples coupled with analytical methods with improper detection levels minimizes and downplays the significant impact on human health posed by the more harmful microscopic amphibole asbestos fibers. The production of several materials at the Johns Manville asbestos plan in Waukegan utilized a rare type of asbestos fiber from Africa that is extremely potent to human health. Crocidolite, the blue asbestos, has been estimated by some risk

based studies to be 500 times more potent to human health than the more common chrysotile asbestos. There were some sample test sites in Engineering Evaluation/Cost Estimate performed by Johns Manville that had detectable amounts of crocidolite that were not included in the draft clean-up plan. In addition, the significant dilution of soil samples combined with laboratory sensitivities that were 2500% higher than what the labs could actually detect, resulted in soils potentially contaminated with the more harmful crocidolite asbestos being labeled as “non-detect” for asbestos. The presence of crocidolite asbestos in soils significantly increases the risk to human health. The sampling, analytical, and clean-up objectives used as the basis for the draft clean-up plan allows crocidolite asbestos to be diluted below clean-up objective levels or the less sensitive laboratory detection levels. Improper identification of the rare, but extremely toxic crocidolite asbestos, results in a clean-up that is not protective of human health.

5. Soil samples that were found to contain toxic microscopic asbestos fibers below the 0.25% clean-up can still pose an unreasonable risk to human health, yet are ignored in the draft clean-up plan. Toxic microscopic asbestos fibers, including the more virulent crocidolite asbestos, will remain in soil as a pose an unreasonable risk to human health. The percentage of asbestos in the sample results obtained by visual estimation, point-counting, and by weight, do not evaluate the airborne risk of the fibers that were detected in numerous samples below the clean-up objective. Therefore, the soil samples found to contain any level of toxic microscopic asbestos fibers can still pose a risk to human health and must be included in a revised clean-up plan until a risk-based clean-up objective can be established. Even with the severe fatal flaws in the sampling and analytical methods outlined in the points above, there are numerous samples taken from soil that were found to contain toxic microscopic asbestos fibers. More disturbing is the finding that the more virulent asbestos, crocidolite, is present in many of those samples (see Appendix B for examples). The quantity of asbestos in soil has nothing to do with the airborne exposure to human health once the soils are disturbed. Therefore, any soils that contain toxic microscopic asbestos fibers in concentrations at 0.25% or less are currently omitted from the clean-up plan even though they can still pose an unreasonable risk to human health. Air sampling and risk assessments are required to establish a clean-up objective that is protective of human health. The Engineering Evaluation/Cost Estimates provided by Johns Manville does not provide any risk based evidence that would allow asbestos contaminated soils, below the err ridden clean-up objective, to be ignored in the draft clean-up plan. All soils with detectable levels of asbestos must be included in the draft clean-up plan until risk-based clean-up objectives are established.

Sites Around the Superfund Site Will Remain Contaminated from Flawed USEPA Evaluations & Clean-ups Conducted Over the last 25+ Years. A Complete Re-Evaluation, Site-Wide, is Needed to Ensure the Protection of Public Health!

The draft clean-up plan has numerous fatal flaws and should be rejected as a remedy that will protect human health from the decades of asbestos pollution in and around the Johns Manville Superfund site. Not only is the current draft clean-up plan inadequate, but previous evaluations and clean-ups at other sites around the Johns Manville property contain the same fatal flaws. A summary of my findings on this draft clean-up plan are as follows:

1. A much more thorough USEPA conducted evaluation is required that doesn't rely upon previously inadequate testing to ensure that the property surrounding the Johns Manville site properly identifies the true scope of areas contaminated from toxic waste originating from the Johns Manville Waukegan operations. There have been too many errors made under the USEPA's watch over the last 25+ years to accurately characterize the full scope of asbestos contamination in and around the Johns Manville Superfund site.
2. The USEPA must require Johns Manville to provide current re-evaluations of each site using the most thorough investigation, sampling, testing, and analytical methods that accurately quantify the extent of contamination. The areas determine not to be contaminated must be verified to be clean to a level protective of human health. All clean-up objectives must be demonstrated to be protective of human health. Currently no such standard exists in this USEPA proposed clean-up plan.
3. The USEPA's clean-up objective of 0.25% is not risk-based and cannot be used as the basis of the proposed clean-up plan at sites 3, 4/5, and 6. Multiple soil samples contained detectable levels of asbestos below the clean-up objective. There is no risk-based data provided to demonstrate that detectable levels of asbestos fibers in soil do not pose an unreasonable risk to human health. New soil and air sampling utilizing more accurate analytical methods is required to properly characterize a cleanup that is protective of health. Air testing is mandatory to evaluate an airborne hazard!
4. The USEPA must establish testing, analytical, and reporting standards that can be used to determine the true extent of soil contamination that could pose an unreasonable risk to human health. Air testing must be part of the evaluation to establish appropriate clean-up objectives.
5. The USEPA must also provide significant clarification of misleading wording and terms used by Johns Manville to minimize and distort the extent of asbestos contamination identified in the flawed cleanup plan for sites 3, 4/5, and 6.
6. Reports relied upon by the USEPA that identified asbestos contamination at sites 3, 4/5, and 6, also identified asbestos in other areas not covered

by the draft clean-up plan. All areas known to contain asbestos contamination along the Illinois Lake Michigan shoreline in front of Johns Manville and Midwest Generations in Waukegan must be re-evaluated for the extent of existing asbestos-contamination and the remediation of these sites must be included in the proposed clean-up plan.

7. Asbestos contamination from the Johns Manville Superfund site have contaminated the sediments where dredging by ComEd/Midwest Generation has identified the presence of asbestos debris matching the asbestos pollution/debris identified in sites 3, 4/5, and 6. The asbestos contaminated sediments near the Johns Manville site have been dredged and dumped on and off-shore of Illinois Beach State Park. The USEPA conducted activity-based testing in 2007, yet a final report on the findings of airborne exposures to the public from the Superfund asbestos wastes have not been released. A draft report was released in early 2009 and challenge by myself and the Illinois Dunesland Preservation Society charging scientific fraud. The report was resubmitted for a second peer review in 2009 but never finalized. The extensive asbestos contamination on Illinois Beach State Park must be made part of the draft clean-up plan or the CDC/ATSDR public health study from 2007 must be finalized stating the chronic pollution poses no risk to the public. Five years to release a report on asbestos exposure that occurred to visitors of Illinois Beach State Park under the USEPA's watch is bordering on a criminal act. Release the finalized public health study of airborne asbestos exposures your agency and CDC/ATSDR conducted in 2007!

The USEPA's lack of attention to known areas of asbestos contamination poses an unreasonable risk to human health along the entire Illinois Lake Michigan Shoreline.

USEPA Intentionally Downplays Asbestos Contamination Found by Others

The USEPA's website

(<http://www.epa.gov/R5Super/npl/illinois/ILD005443544.html>) describes contamination surrounding the Johns Manville site as follows: "*Since 1998, seven additional areas, all of which contained asbestos-containing material (ACM) were discovered outside of the Johns-Manville fence line. These areas have been characterized by Johns-Manville.*" What the USEPA fails to mention is that others outside of the USEPA have identified these sites well after the USEPA had already claimed they were not contaminated. Many of these seven sites were NOT identified by the USEPA. All of these sites were discovered by other studies unrelated to the USEPA's activities. Additional contamination outside of the seven sites has been identified that the USEPA has failed to include in the Superfund evaluation and clean-up. The USEPA's lack of attention to known areas of asbestos contamination poses an unreasonable risk to human health along the entire Illinois Lake Michigan Shoreline.

Finding #1: The USEPA has continually failed to perform proper site evaluations both in and around the Johns Manville site since they have been responsible for determining the extent of asbestos contamination back in the mid-1980's! A more thorough and comprehensive site evaluation for contamination is necessary to provide confidence in the effectiveness of the proposed clean-up plan to be protective of human health.

Asbestos contamination is known to be present in areas well beyond the very limited additional clean-up proposed at sites 3, 4/5, and 6. Midwest Generation (formerly owned by Commonwealth Edison) continues to find significant amounts of asbestos contamination when the lake sediments are dredged from the lake water intake and warm water discharge at their site along the Lake Michigan shoreline. The source of the asbestos contamination fits the laboratory "finger print" of Johns Manville pollution found within the USEPA's Superfund site. This same asbestos "finger print" is found in the chronic asbestos pollution that appears on Illinois Beach State Park on a daily basis. The shoreline should be reevaluated and included into the proposed clean-up plan to prevent the continuous spreading of this toxic waste and protect human health.

Finding #2: A much more thorough USEPA conducted evaluation is required that doesn't rely upon previously inadequate testing to ensure that the property surrounding the Johns Manville site properly identifies the true scope of areas contaminated from toxic waste originating from the Johns Manville Waukegan operations. There have been too many "errors" made under the USEPA's watch over the last 25+ years to accurately characterize the full scope of asbestos contamination in and around the Johns Manville Superfund site.

Johns Manville Engineering Study Erroneously "Assumes" Past Testing is Accurate and Can Be Used to Exclude Contaminated Areas from Clean-Up. The Engineering Evaluation/Cost Analysis prepared by Johns Manville relies upon older testing results and makes assumptions that significantly reduce the scope of the clean-up required by their plan. The Johns Manville Engineering Evaluation/Cost Analysis relied upon testing from others and assumes it is accurate. For example, the report states on page 19, "*Previously completed grid sampling characterization of Site 3 is assumed to have determined the horizontal extent of ACM-impacted soils.*" There should be no assumptions about the absence of contamination based on previously flawed studies. All areas that are currently "assumed" to be non-contaminated must be re-evaluated utilizing clean-up objectives and sampling techniques that demonstrate the clean-up objectives are protective of human health. The previous studies relied upon to determine the extent of contamination do not contain scientifically accepted protocols and standards that demonstrated to be protective of human health. The past defective and limited studies contained fatal flaws in excess of what is discussed in this letter. Past limited and flawed studies should not be allowed to be used to exclude areas from the draft clean-up plan.

Finding #3: The USEPA must require Johns Manville to provide current re-evaluations of each site using the most thorough investigation, sampling, testing, and analytical methods that accurately quantify the extent of contamination. The areas determined by Johns Manville not to be contaminated with microscopic toxic asbestos fibers must be verified to be clean to a level protective of human health. All clean-up objectives must be demonstrated to be protective of human health. Currently no such standard exists in this USEPA proposed clean-up plan. Therefore, the draft clean-up plan is fatally flawed and does not support its conclusion that it is protective of human health.

Engineering Evaluation/Cost Analysis Uses Flawed Clean-Up Objectives

The data generated by Johns Manville that was relied upon by the USEPA to develop the proposed cleanup plan contains significant errors that require the development of new clean-up objectives and further evaluation of soils and air. The Engineering Evaluation/Cost Analysis (Arcadis, April 4, 2011) prepared by Johns Manville's consultant uses vague descriptions of what asbestos contamination was found to develop an inadequate clean-up plan that does not demonstrate it is protective of public health. The clean-up objective of 0.25% asbestos detected is not risk-based and cannot be demonstrated to be protective of public health. Other available analytical methods used to test soils for the presence of asbestos measure for concentrations well below 0.25%. Additionally, no risk based air sampling was performed to establish clean-up objectives that are protective of human health.

Finding #4: The USEPA's clean-up objective of 0.25% is not risk-based and cannot be used as the basis of the proposed clean-up plan at sites 3, 4/5, and 6. Multiple soil samples contained detectable levels of asbestos below the clean-up objective. There is no risk-based data provided to demonstrate that detectable levels of toxic microscopic asbestos fibers in soil do not pose an unreasonable risk to human health. New soil and air sampling utilizing more accurate analytical methods is required to properly characterize a cleanup that is protective of health. Proper, scientifically-base air testing using accepted protocols is mandatory to evaluate an airborne asbestos hazard!

Johns Manville's Report Deceptively Uses Wording to Downplay Contamination

The Engineering Evaluation/Cost Analysis (Arcadis, April 4, 2011) prepared by Johns Manville's consultant uses vague descriptions of what asbestos contamination was found to develop an inadequate clean-up plan that does not demonstrate it is protective of public health. The report is riddled with undefined terms that misrepresent the toxic pollution found in soil. Some of the terminology appears to be used interchangeably in some areas and for specific uses in other areas. Terms noted that do not have a clear definitions in the clean-up plan include "asbestos", "presence of asbestos", "presence of ACM", "ACM not present above the clean-up objective", "detected but below the "ACM-affected soil", "soil affected by ACM", "asbestos-impacted soil", "asbestos-affected soil", "asbestos-affected soil/debris", and "asbestos-affected debris/soil".

The soil is clearly *polluted* with asbestos, not “affected by asbestos”. The citizen’s and worker’s health are affected by the asbestos polluted soil. The Johns Manville Engineering Evaluation/Cost Analysis that was conducted using a flawed clean-up object of 0.25%, further misuses invented, undefined, and misleading terms to downplay their inappropriate evaluation of asbestos pollution at these sites. Clarification of terms to describe contaminated vs. non-contaminated soils must be provided by the USEPA before a reasonable public evaluation of the Engineering Evaluation/Cost Analysis can be made.

Finding #5: The USEPA must establish testing, analytical, and reporting standards that can be used to determine the true extent of soil contamination that could pose an unreasonable risk to human health. Air testing must be part of the evaluation to establish appropriate clean-up objectives.

Finding #6: The USEPA must also provide significant clarification of misleading wording and terms used by Johns Manville to minimize and distort the extent of asbestos contamination identified in the flawed cleanup plan for sites 3, 4/5, & 6.

USEPA Proposed Clean-Up Plan Contains Fatal Flaws Requiring Re-Evaluation

The data relied upon to develop the proposed clean-up plan contains fatal flaws that require a more detailed re-evaluation of the extent of asbestos contamination in sites 3, 4/5, 6. In addition, known contamination in other areas under the USEPA’s jurisdiction must also be included in the re-evaluation.

The additional sites currently being ignored by the USEPA’s faulty clean-up plan includes:

- Contaminated soils in Site 2;
- Contaminated soils, beach sands, and sediments along the Lake Michigan shoreline bordering the Johns Manville and Midwest Generation property;
- Contaminated sediments at the discharge pipe (expired NPDES permit) out in Lake Michigan where toxic microscopic asbestos fibers and other toxic pollutants from waste water have improperly discharged into the federal navigable waters in apparent violation of federal and state statutes;
- Contaminated beach sand and sediments from past and CONTINUED dredging and dumping of asbestos-contaminated sediments along the Illinois Lake Michigan shoreline.

Finding #7: All areas known to contain asbestos contamination along the Illinois Lake Michigan shoreline in front of Johns Manville and Midwest Generations in Waukegan must be re-evaluated for the extent of existing asbestos-contamination and the remediation of these sites must be included in the proposed clean-up plan.

USEPA Ignores Known Contamination Impacting Lake Michigan Shoreline

Asbestos waste and microscopic asbestos contamination from the Johns Manville Superfund site has been spread up and down the Illinois Lake Michigan shoreline by dredging operations by Commonwealth Edison, Midwest Generation, the Army Corps of Engineers, and the Illinois Department of Natural Resources. The spreading of this contamination has occurred under the observation and acknowledgement of the Illinois Attorney General.

The continued dredging and dumping of asbestos-contaminated sediments has impacted public health from the Illinois-Wisconsin border/Illinois Beach State Park/Waukegan, down to northshore communities such as Lake Forest and Highland Park, and further along to Chicago's Oak Street beach. The existing contamination that is currently being ignored by the USEPA and State of Illinois must be evaluated and included in the proposed clean-up plan. The current testing performed on Lake Michigan sediments is not risk-based. The sediments were polluted from the Johns Manville asbestos discharges into Lake Michigan and must be evaluated by the USEPA as potential new clean-up sites.

Finding #8: The USEPA must perform evaluations to determine the extent of Johns Manville asbestos pollution known to have polluted shoreline sediments along the entire Illinois Lake Michigan shoreline that are continually spread through annual dredging operations. Past and current testing and evaluations performed and/or mandated by the State of Illinois are not able to demonstrate levels of the current toxic microscopic asbestos fiber contamination in these sediments do not pose an unreasonable risk to human health. The misleading testing required by the State of Illinois does not exempt the USEPA from its responsibilities to evaluate the shorelines for Superfund clean-up consideration.

Conclusion

There are fatal flaws of the draft clean-up plan are too numerous to cover in this brief overview. I have summarized some of the most glaring deficiencies on how the draft clean-up plan is not protective of human health. Sites 3, 4/5, and 6, along with numerous other sites in and around the Johns Manville Superfund site must be re-evaluated with sampling, analytical methods, and clean-up objectives that do not allow for the dilution of asbestos contamination and demonstrate that they are protective of human health. All past evaluations and clean-up activities relating to the massive asbestos pollution in and around the Johns Manville Superfund site contain fatal flaws. The remedies at the Johns Manville Superfund site are not protective of human health.

I have an extensive amount of documentation to support my finding that the draft clean-up plan is fatally flawed. There are numerous other flaws that I have not itemized out which will require attention prior to the issuance of a revised draft clean-up plan. Please contact me at your earliest convenience and I will discuss these other flaws noted in the draft clean-up plan.

Cordially,

Jeffery C. Camplin

Jeffery C. Camplin, MS, CSP, CPEA

Cc: Paul A. Kakuris, President, Illinois Dunesland Preservation Society
Lisa Jackson, USEPA Administrator
Arthur A. Elkins, Jr., USEPA Office of the Inspector General
Susan Hedman, Region 5 Administrator
Jan Carlson, USEPA Region 5 Office of Regional Counsel

APPENDIX A

USEPA Memo Regarding the Use of “Risk Based” Clean Up Objectives at Asbestos Contaminated Sites



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

AUG 10 2004

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

OSWER 9345.4-05

MEMORANDUM

SUBJECT: Clarifying Cleanup Goals and Identification of New Assessment Tools for Evaluating Asbestos at Superfund Cleanups

FROM: Michael B. Cook, Director
Office of Superfund Remediation and Technology Innovation

TO: Superfund National Policy Managers, Regions 1-10

Purpose

The purpose of this memo is twofold. The first purpose is to clarify that Regions should develop risk-based, site-specific action levels to determine if response actions should be taken when materials containing less than 1 percent asbestos (including chrysotile and amphibole asbestos) are found on a site. Regions should not assume that materials containing less than 1 percent asbestos do not pose an unreasonable risk to human health. The second purpose is to outline some activities underway to assist in the evaluation of asbestos risks at Superfund sites.

It is important to note that this memorandum is not a regulation itself, nor does it change or substitute for any regulations. Thus, it does not impose legally binding requirements on EPA, States, or the regulated community. This memorandum does not confer legal rights or impose legal obligations upon any member of the public. Interested parties are free to raise questions and objections about the substance of this memorandum and the appropriateness of the application of this memorandum in a particular situation. EPA and other decision makers retain the discretion to adopt approaches on a case-by-case basis that differ from those described in this memorandum. The use of the word "should" in this document means that something is suggested or recommended, but not required.

Background

The 1 percent threshold for asbestos-containing materials was first used in the 1973 National Emissions Standards for Hazardous Air Pollutants (NESHAP), where the intent of the threshold was:

... to ban the use of materials which contain significant quantities of asbestos, but to allow the use of materials which would: (1) contain trace amounts of asbestos which occur in numerous natural substances, and (2) include very small quantities of asbestos (less than 1 percent) added to enhance the material's effectiveness. (38 FR 8821)

All subsequent EPA regulations and the Asbestos Hazardous Emergency Response Act Statute included this 1 percent threshold. In the 1990 NESHAP revisions, EPA retained the threshold, stating that it was related to the phase contrast microscopy (PCM) analytical method detection limits. The Occupational Safety and Health Administration (OSHA) Standards also defined an asbestos-containing material as a material containing more than 1 percent of asbestos¹ (29 CFR Part 1910.1001 and 29 CFR Part 910.134). The wide use of the 1 percent threshold in regulations may have caused site managers to assume that levels below the threshold did not pose an unreasonable risk to human health. However, it is important to note that the 1 percent threshold concept was related to the limit of detection for the analytical methods available at the time and also to EPA's prioritization of resources on materials containing higher percentages of asbestos.

Issue

Currently, many site managers continue to employ the use of the 1 percent threshold to determine if response actions for asbestos should be undertaken. However, based upon scientific discussions and findings reported by EPA and ATSDR from the Libby, Montana Superfund site, as well as EPA's "Peer Consultation Workshop on a Proposed Asbestos Cancer Risk Assessment²," there may be confusion regarding the appropriate use of the 1 percent threshold at Superfund sites. This concern was discussed at EPA's "Asbestos Site Evaluation, Communication, and Cleanup Workshop³," and it was concluded that the 1 percent threshold for asbestos in soil/debris as an action level may not be protective of human health in all instances of site cleanups. The 1 percent threshold is not risk-based and an accurate exposure value could only be determined through site sampling techniques that generate fibers from soil and bulk samples. Therefore, we recommend the development of risk-based, site-specific action levels to determine if response actions for asbestos in soil/debris should be undertaken.

Recent data from the Libby site and other sites provide evidence that soil/debris containing significantly less than 1 percent asbestos can release unacceptable air concentrations of all types of asbestos fibers (i.e., serpentine/chrysotile and amphibole/tremolite). The most critical determining factors in the level of airborne concentrations are the degree of disturbance, which is associated with the level of activity occurring on the site, and the presence of complete exposure pathways. For example, activities such as excavation or plowing generate large amounts of dust that can result in the generation of airborne fibers that can be inhaled even from a complex soil matrix. To address this evolving issue, OSRTI will be hosting a review of methods for determining conversion of soil to air concentrations in 2004.

Future Action

OSRTI has formed three technical working groups to assist in developing guidance and policy relating to risk assessment, field sampling, and analytical methods. These working groups have already contributed to a new toolbox that is located on the EPA Intranet. The location of the tool box is <http://intranet.epa.gov/osrtinet/hottopic.htm>.

The toolbox will be continually updated as products are developed and will eventually contain information on risk assessments, generic site sampling, and analytical approaches for asbestos cleanup projects. In the interim, numerous site reports that discuss specific concerns and issues from current asbestos site actions are contained in the toolbox. Additionally, to facilitate the development of sampling plans, there are examples of approved site sampling plans with data quality objectives, and a list of asbestos analytical laboratories which have passed an EPA audit.

Our goal is to have the majority of the guidance and policy documents prepared by the end of this year. If you have any questions, please consult with Richard Troast of my staff, who is the lead scientist within OSRTI for asbestos. He can be reached at (703) 603-8805 or by e-mail at: troast.richard@epa.gov.

cc:

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Linda Garczynski, OBCR
Dave Kling, FFEO
Susan Bromm, OSRE
Earl Salo, OGC
Charles Openchowski, OGC
Joanna Gibson, OSRTI Documents Coordinator

Endnotes:

1. Pursuant to industry comments, the 1994 amendments to the OSHA Standards incorporated a definition of asbestos-containing material that included the 1 percent threshold to be consistent with EPA, and noted that the National Institute for

Occupational Safety and Health (NIOSH) had raised questions whether even one percent may be below the accuracy level for certain microscopic methods. However, OSHA's Hazard Communication Standard requires a Material Safety Data Sheet (MSDS) to be prepared by the manufacturer or importer of a chemical substance, mixture, or product containing more than 0.1 percent of any carcinogen, including asbestos. Additionally, OSHA has recently issued several letters stating that some of the requirements in the OSHA Asbestos Construction Standard (29 CFR 1926.1101) do cover materials containing less than one percent asbestos.

2. USEPA's *Peer Consultation Workshop on a Proposed Asbestos Cancer Risk Assessment* was held in San Francisco, California on February 25-27, 2003. The purpose of the workshop was to discuss the scientific merit of the proposed methodology developed for EPA by Dr. Wayne Berman and Dr. Kenny Crump. The proposed methodology distinguishes carcinogenic potency by asbestos fiber size and asbestos fiber type and advocates use of a new exposure index to characterize carcinogenic risk. Proceedings from this conference can be located at:
<http://www.epa.gov/superfund/programs/risk/asbestos/index.htm>.
3. USEPA's *Asbestos Site Evaluation, Communication and Cleanup Workshop* was held in Keystone, Colorado on September 23-26, 2003. The purpose of the workshop was to provide an opportunity to share lessons learned from working on large sites contaminated with asbestos. The meeting was also used to identify key outstanding technical and policy issues, and to begin to develop a consistent approach to measuring "success", especially short-term impacts and long-term risk reduction. Proceedings from this conference can be located at:
<http://www.epa.gov/superfund/programs/risk/asbestos/workshop/index.htm>.

APPENDIX B

Examples of Lab Results Where Chrysotile and the More Virulent Crocidolite Asbestos Was Detected But Not Included in the USEPA's Draft Clean-Up Plan

**EMSL Analytical, Inc**

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Attn: **David Kulczycki**
LFR INC
630 Tollgate Road
Suite D
Elgin, IL 60123

Customer ID: LEVI93
Customer PO: 17342
Received: 02/07/08 9:00 AM
EMSL Order: 090800965

Fax: (847) 695-7799 Phone: (847) 695-8855
Project: **009-07992-00-001, 17342, Johns Manville- Southwestern**
Site Area, Site Area-415, Waukegan, Illinois

EMSL Proj:
Analysis Date: 2/15/2008
Report Date: 4/10/2008

PLM Analysis of Bulk Samples for Asbestos via EPA 600/R-93/116 Method with CARB
435 Prep (Milling) Level A for 0.25% Target Analytical Sensitivity

Sample	Location	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
S4/5-3D-2-3 090800965-0011	Test pit	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
S4/5-4C-0-1 090800965-0014	Test pit	Beige Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
S4/5-4C-1-2 090800965-0015	Test pit	Tan Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
S4/5-4C-2-3 090800965-0016	Test pit	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
S4/5-4C-4-5 090800965-0017	Test pit	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
S4/5-3B-4-5 090800965-0018	Test pit	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
S4/5-D P1 090800965-0019	Test pit	Brown Non-Fibrous Homogeneous		99.75% Non-fibrous (other)	0.25% Chrysotile <0.25% Crocidolite
S4/5-5C-0-1 090800965-0020	Test pit	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
S4/5-5C-1-2 090800965-0021	Test pit	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
S4/5-5C-2-3 090800965-0022	Test pit	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected

Analyst(s)

a on gri (38)

Baojia Ke, Laboratory Manager
or other approved signatory

This report relates only to the samples listed above and may not be reproduced except in full, without EMSL's written approval. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. EMSL is not responsible for sample collection activities or method limitations. Some samples may contain asbestos fibers below the resolution limit of PLM. EMSL recommends that samples reported as none detected or less than the limit of detection undergo additional analysis via TEM. Samples received in good condition unless otherwise noted.

EMSL Analytical, Inc.

2235 Polvorosa Drive, Suite 230, San Leandro, CA 94577 ♦ (510) 895-3675 ♦ sanleandrolab@emsl.com

Client: LFR, Inc.
630 Tollgate Road, Suite D
Elgin, IL 60123

EMSL Reference: 090801253

Attention: David Kulczycki

Fax: (847) 695-7799

Phone: (847) 902-1517

Date Received: 02/12/08

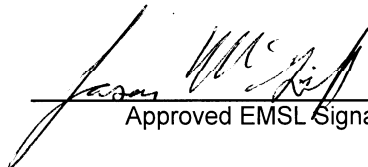
Date Analyzed: 03/22/08

Date Reported: 03/26/08

Project: 009-07992-00-001, LRF PO 17342, Johns Manville-Southwestern Site Area, Area 4/5, Waukegan, IL

Asbestos Analysis of Soil Samples via Modified EPA 600/R-93/116 Method Utilizing Analytical Electron Microscopy (Section 2.5.5.2) with CARB 435 Prep (Milling) Level B for 0.1% Target Analytical Sensitivity

Client Sample ID	EMSL Sample ID	Asbestos Type(s)	# of Asbestos Structures Detected	Analytical Sensitivity %	Asbestos Weight %	Comments
S4/5-7D-0'- 1'	090801253-0020	Chrysotile	7	0.1	< 0.1	
S4/5-13A-1'- 2'	090801253-0022	Chrysotile Crocidolite	96 1	0.1	0.2	
S4/5-16A-4'- 5'	090801253-0036	Chrysotile	23	0.1	< 0.1	
S4/5-17A-4'- 5'	090801253-0041	Chrysotile	6	0.1	< 0.1	
S4/5-18A-3'- 4'	090801253-0046	Chrysotile	1	0.1	< 0.1	


Approved EMSL Signatory

EMSL maintains liability limited to cost of analysis. This method requires the laboratory to analyze the sample until the first fiber found compromises 5% of the total mass. Due to the size and mass of different asbestos fibers, the analytical sensitivity will vary between samples and may prevent the laboratory from achieving the target sensitivity on all samples. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL is not responsible for sample collection activities or analytical method limitations. Interpretation and use of results are the responsibility of the client.